

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re Application of:

Confirmation No.: 5349

Anthony J. Wasilewski

Group Art Unit: 2431

Serial No.: 10/602,988

Examiner: Chai, Longbit

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Docket No.: A-9286/60374.0029USC9

For: Method for Partially Encrypting Program Data

APPEAL BRIEF UNDER 37 C.F.R. §1.192

Mail Stop Appeal Brief - Patents
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This is an appeal from the Final Office Action dated April 1, 2009, which rejected claims 1-20 in the present application.

I. REAL PARTY IN INTEREST

The real party in interest of the instant application is Scientific-Atlanta, Inc., having its principal place of business at 5030 Sugarloaf Parkway, Lawrenceville, GA 30044. Scientific-Atlanta, Inc., the assignee of record, is wholly owned by Cisco Systems, Inc.

II. RELATED APPEALS AND INTERFERENCES

Concurrently with the filing of this Appeal Brief is the filing of Appeal Briefs in related Application Nos. 10/602,986 and 10/602,987.

III. STATUS OF THE CLAIMS

Claims 1-20 currently stand rejected. Appellants appeal the final rejection of claims 1-20.

IV. STATUS OF AMENDMENTS

No amendments have been made or requested since the mailing of the Final Office Action and all amendments submitted prior to the Final action have been entered. The claims in the attached Claims Appendix (see below) reflect the present state of Appellants' claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter is summarized below with reference numerals and references to the written description ("specification") and drawings. The subject matter, described in the following, appears in the original disclosure at least where indicated, and may further appear in other places within the original disclosure.

Embodiments of the claimed subject matter are illustrated in FIGs. 1-29 and are discussed in the specification at least in pages 1-71.

Embodiments of the claimed subject matter, such as those defined by claim 1, define a method for providing a program in a conditional access system, the method comprising the steps of: selecting a digital bit stream from a plurality of digital bit streams (see, e.g., page 13, lines 6-16; FIG. 3); encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream (see, e.g., page 13, lines 6-16; FIG. 3); encrypting a second portion of the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method (see, e.g., page 13, lines 6-16; FIG. 3); multiplexing

the first encrypted stream, the second encrypted stream, and the plurality of digital bit streams to provide a partially-encrypted stream (see, e.g., p. 28, lines 15-22); and transmitting the partially-encrypted stream (see, e.g., page 13, lines 14-16; FIG. 3).

Embodiments of the claimed subject matter, such as those defined by claim 7, define a method for providing a plurality of programs in a conditional access system, the method comprising the steps of: selecting a plurality of elementary bit streams from a transport stream (see, e.g., page 13, lines 6-16; FIG. 3); encrypting a first portion of the selected elementary bit streams according to a first encryption method to provide a first encrypted stream; encrypting a second portion of the selected elementary bit streams according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method (see, e.g., page 13, lines 6-16; FIG. 3); multiplexing the first and second encrypted stream and the remaining portion of the selected elementary bit stream with the transport stream (see, e.g., p. 28, lines 15-22); and transmitting the multiplexed stream (see, e.g., page 13, lines 14-16; FIG. 3).

Embodiments of the claimed subject matter, such as those defined by claim 15, define a system comprising: means for selecting a digital bit stream from a plurality of digital bit streams (see, e.g., page 13, lines 6-16; FIG. 3); means for encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream (see, e.g., page 13, lines 6-16; FIG. 3); means for encrypting a second portion of the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method (see, e.g., page 13, lines 6-16; FIG. 3); means for multiplexing the first encrypted stream, the second encrypted stream, and the plurality of digital bit streams to provide a partially-encrypted stream

(see, e.g., p. 28, lines 15-22); and means for transmitting the partially-encrypted stream (see, e.g., page 13, lines 14-16; FIG. 3).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-12 and 15-20 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 7,376,233 ("*Candelore*") with *incorporated by reference* of U.S. Pat. Pub. No. 2003/0026423 ("*Unger*"). Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Candelore* in view of U.S. Patent No. 7,216,358 ("*Vantalon*")

VII. ARGUMENT

In the present case, it is respectfully submitted that a *prima facie* case for anticipation or unpatentability is not established using the art of record. For at least the reasons set forth below, Appellants respectfully request that the Board of Patent Appeals overturn the final rejection of those claims.

1. Priority Date

Pages 2-3 of the Final Office action alleges that the application pertaining to the beneficial priority date fails to "support the disclosure of partial encryption of the same data stream using two different methods/algorithms, as recited in the claims (see @ Item #2), such as '*encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream and encrypting a second portion of the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method.*'"

(emphasis in original)

The Interview Summary record, mailed by the Office on November 19, 2008, further alleges the following:

After the 2nd Intensive review by the Office, the common agreement for allowance to amend the independent claim (per phone interview on 8/15/2008 or Applicant summary of interview on 9/2/2008) as selecting a digital bit stream..."using a packet identifier" and encrypting a first portion of the selected digital bit stream has been declined according to the decision of the conference – This is because the Affidavits filed by Applicant (per co-pending application 10/602,986 & 10/602,987) to support the "similar" feature of the amended claim limitation for a earlier beneficial priority date in order to distinguish from the prior arts is not persuasive. Accordingly, Examiner respectfully requests Applicant to submit the formal written REMARKS in response to the Non-Final office Action (submitted on 6/20/2008) ASAP for continuing the prosecution to avoid the abandonment...

Appellants respectfully disagree with the above allegations of non-support from the Interview and non-final Office Action. In addition, in view of the non-final Office Action of 6/20/2008, it appears that the denial of the beneficial priority date is based on 35 U.S.C. §112(1), and hence from page 2 of the non-final Office Action dated November 18, 2008, the effective filing date alleged for the present claims is June 25, 2003 (which appears to be different than the effective filing date alleged for the claims in the 6/20/2008 Office Action, page 3). Appellants will assume for the sake of argument that the Office, as of now, recognizes June 25, 2003 as the effective filing date of the present claims.

Further, the Final Office Action summary referenced and reproduced in part above as made mention of previously filed declarations for other cases. Appellants respectfully note that for the present case, the rejection is improper. That is, for a proper rejection under 35 U.S.C. §112(1), MPEP 2163 provides as follows:

The examiner has the initial burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in the original disclosure a description of the invention defined by the claims. See *Wertheim*, 541 F.2d at 263, 191 USPQ at 97 ("[T]he PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not

recognize in the disclosure a description of the invention defined by the claims."). However, when filing an amendment an applicant should show support in the original disclosure for new or amended claims.

Appellants respectfully submit that the present rejection has not met the *initial* burden established under MPEP 2163 for rejecting the priority claim, and hence the rejection is deficient in that regard. Nevertheless, in the interest of advancing prosecution on the merits, Appellants address where support can be found in the specification for the current claim language. MPEP 2163 provides the following guidelines for 35 U.S.C. §112(1) with respect to priority dates:

To comply with the written description requirement of 35 U.S.C. 112, para. 1, or to be entitled to an earlier priority date or filing date under 35 U.S.C. 119, 120, or 365(c), each claim limitation must be expressly, implicitly, or inherently supported in the originally filed disclosure. When an explicit limitation in a claim "is not present in the written description whose benefit is sought it must be shown that a person of ordinary skill would have understood, at the time the patent application was filed, that the description requires that limitation." *Hyatt v. Boone*, 146 F.3d 1348, 1353, 47 USPQ2d 1128, 1131 (Fed. Cir. 1998).

As the Final Office Action alleges priority issues with the second and third elements of claim 1, as an illustrative example, Appellants address those elements below in the context of the written description requirement. Claim 1 requires "encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream," and "encrypting a second portion of the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method." Appellants wish to draw attention to page 13, lines 6-16 of the specification, which is used in conjunction with Figure 3. Figure 3 and the above-noted specification portion reveals a digital bit stream (e.g., transport stream) comprising ECM encrypted according to 3DES (e.g., 321) and audio/video/data content coded according to DES (e.g., 327). Such a disclosure would be readily evident to one having ordinary skill in the art

that different encryption methods for the same stream, different portions, are contemplated. In addition, page 27 of the specification (lines 19-29), used in conjunction with Figure 7, describes detailed mechanisms of MPEG transport, and in particular, the fact that “any part or all of MPEG transport stream” may be encrypted, revealing to one having ordinary skill in the art that the stream may comprise clear and encrypted portions (i.e., partially encrypted). Note that one encryption method is described as the DES algorithm (for the program), and on page 28, lines 15-22, the ECMs are encrypted according to a different method (3DES), consistent with the previously described portions of the specification pertaining to Figure 3.

Accordingly, it is clear that the specification supports the above-recited claim 1 elements, and to the extent such elements are found in identical or similar form in claims 7 and 15, Appellants respectfully request that the priority denial be withdrawn. In addition, since the current application is a continuation along a line of continuations having an effective priority date of July 8, 1998, the effective filing date at least goes back to July 8, 1998. Although Appellants respectfully disagree with the allegations pertaining to the alleged unpersuasiveness of the affidavits in related cases (and hence believe priority can be dated back to the provisional application date of August 1, 1997), the issue of support in the provisional is moot for purposes of the present rejection and the *Candelore* and *Unger* references.

2. Rejection of Claims 1-12 and 15-20 under 35 U.S.C. §102(e)

Claims 1-12 and 15-20 have been rejected under §102(e) as allegedly anticipated by *Candelore et al.* (U.S. 7,376,233, herein, “*Candelore*”) with incorporated by reference *Unger et al.* (“*Unger*,” U.S. Patent Pub. 2003/0026423). Appellants respectfully traverse this rejection. In particular, since the claims of the present application enjoy the benefit of a filing date that predates the effective filing date of *Candelore* (and *Unger*), the art of record does not represent

anticipatory subject matter, and accordingly, the rejection should be withdrawn.

For at least the reason that independent claims 1, 7, and 15 are allowable over the cited references of record, respective dependent claims 2-6, 8-12, and 16-20 are allowable as a matter of law.

3. Rejection of Claims 13-14 under 35 U.S.C. §103(a)

Claims 13-14 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Candelore* in view of *Vantalon et al.* (“*Vantalon*,” U.S. Pat. No. 7,216,358). For at least the reason that *Candelore* fails to serve as anticipatory art, and to the extent that *Candelore* is used to support a rejection of claim 7 features, *Vantalon* does not remedy the deficiencies of *Candelore*. Accordingly, claims 13-14 are allowable for at least the reason that claim 7 is allowable over the art of record. Accordingly, Appellants respectfully request that the rejection be withdrawn.

CONCLUSION

Based upon the foregoing discussion, Appellants respectfully requests that the Examiner's final rejection of claims 1-19 be overruled and withdrawn by the Board, and that the application be allowed to issue as a patent with all pending claims.

In addition to the claims shown in the claims Appendix VIII, Appendix IX attached hereto indicates that there is no evidence being attached and relied upon by this brief. Appendix X attached hereto indicates that there are no related proceedings.

Payment is being made via Credit Card in the amount of \$540.00 for the filing of this Appeal Brief. It is not believed that extensions of time or additional fees are required to consider this Appeal Brief. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. §1.136(a), and any additional fees required therefore are hereby authorized to be charged to Deposit Account No. 13-2725.

Respectfully submitted,

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VIII. CLAIMS - APPENDIX

1. (Previously Presented) A method for providing a program in a conditional access system, the method comprising the steps of:

selecting a digital bit stream from a plurality of digital bit streams;

encrypting a first portion of the selected digital bit stream according to a first encryption method to provide a first encrypted stream;

encrypting a second portion of the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method;

multiplexing the first encrypted stream, the second encrypted stream, and the plurality of digital bit streams to provide a partially-encrypted stream; and

transmitting the partially-encrypted stream.

2. (Original) The method of claim 1, wherein a portion of the selected digital bit stream is encrypted, wherein the encrypted portion and an unencrypted portion of the selected digital bit stream are combined with the plurality of digital bit streams.

3. (Original) The method of claim 1, wherein the selected digital bit stream includes a plurality of packets, and wherein each packet includes a packet identifier identifying whether the packet is at least one of a video stream, an audio stream, and a data stream.

4. (Original) The method of claim 3, wherein the selecting step selects the digital bit stream by identifying a predetermined packet identifier.

5. (Original) The method of claim 3, wherein the selecting step selects the digital bit stream by identifying a plurality of predetermined packet identifiers.

6. (Original) The method of claim 5, wherein the plurality of predetermined packet identifiers is at least one of the video stream, the audio stream, and the data stream.

7. (Previously Presented) A method for providing a plurality of programs in a conditional access system, the method comprising the steps of:

- selecting a plurality of elementary bit streams from a transport stream;
- encrypting a first portion of the selected elementary bit streams according to a first encryption method to provide a first encrypted stream;
- encrypting a second portion of the selected elementary bit streams according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method;
- multiplexing the first and second encrypted stream and the remaining portion of the selected elementary bit stream with the transport stream; and
- transmitting the multiplexed stream.

8. (Original) The method of claim 7, wherein each of the plurality of elementary bit streams includes a plurality of packets, wherein each packet includes a packet header that is indicative of at least one of a video stream, an audio stream, and a data stream.

9. (Original) The method of claim 8, wherein the selecting step selects the plurality of

elementary bit streams by identifying at least one of the video stream, the audio stream, and the data stream.

10. (Original) The method of claim 7, wherein each of the plurality of elementary bit streams includes a plurality of packet identifiers, and wherein the selecting step selects the plurality of elementary bit streams by identifying a predetermined packet identifier.

11. (Original) The method of claim 7, wherein each of the plurality of elementary bit streams includes a plurality of packet identifiers, and wherein the selecting step selects the plurality of elementary bit streams by identifying a plurality of predetermined packet identifiers.

12. (Previously Presented) The method of claim 11, wherein the portion of the selected elementary bit stream includes at least one of a video stream, an audio stream, and a data stream.

13. (Previously Presented) The method of claim 1, wherein the first encryption method comprises 3DES and the second encryption method comprises DES.

14. (Previously Presented) The method of claim 7, wherein the first encryption method comprises 3DES and the second encryption method comprises DES.

15. (Previously Presented) A system comprising:

means for selecting a digital bit stream from a plurality of digital bit streams;

means for encrypting a first portion of the selected digital bit stream according to a first

encryption method to provide a first encrypted stream;

means for encrypting a second portion of the selected digital bit stream according to a second encryption method to provide a second encrypted stream wherein the second encryption method is different from the first encryption method;

means for multiplexing the first encrypted stream, the second encrypted stream, and the plurality of digital bit streams to provide a partially-encrypted stream; and

means for transmitting the partially-encrypted stream.

16. (Previously Presented) The system of claim 15, wherein a portion of the selected digital bit stream is encrypted, wherein the encrypted portion and an unencrypted portion of the selected digital bit stream are combined with the plurality of digital bit streams.

17. (Previously Presented) The system of claim 15, wherein the selected digital bit stream includes a plurality of packets, and wherein each packet includes a packet identifier identifying whether the packet is at least one of a video stream, an audio stream, and a data stream.

18. (Previously Presented) The system of claim 17, wherein the means for selecting selects the digital bit stream with a means for identifying a predetermined packet identifier.

19. (Previously Presented) The system of claim 17, wherein the means for selecting selects the digital bit stream with a means for identifying a plurality of predetermined packet identifiers.

20. (Previously Presented) The system of claim 19, wherein the plurality of predetermined packet identifiers is at least one of the video stream, the audio stream, and the data stream.

IX. EVIDENCE - APPENDIX

None.

IX. RELATED PROCEEDINGS- APPENDIX

None.